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Antennas and Power Line Safety!

DANGER!

Don't be STUPID and DEAD!



Power line Safety label.

You may have seen this label on a commercial antenna or other products.

If you did not take a moment to read it carefully,

Notice the word "near".

Is your antenna "near" those power lines or could it be when unforeseen things happen?

How close is "too close"? How close is "near"?

In this article, we will attempt to inform you of the **EXTREME DANGER** posed by installing an antenna, any antenna, too close to power lines. Now don't make the mistake and say that can not happen with your antenna, it is made from fiberglass or other material which is an insulator!....you may be "dead" wrong! Read on.....

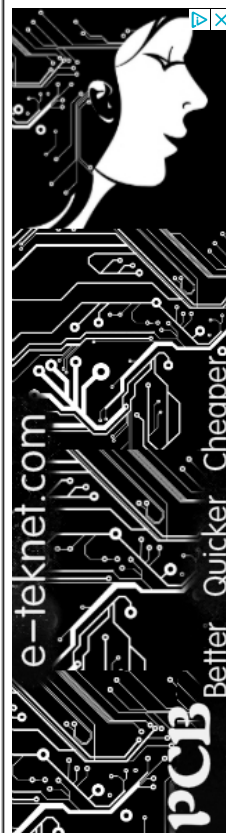
Most new hams are excited when they get their license and they want to get on the air as soon as possible. Many of them have not given a thought to the actual installation of an outside ham antenna and the dangers involved other than getting it up as high as they can and having it fall on them.

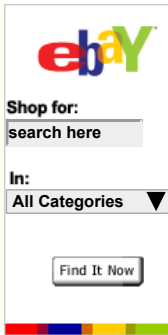
If you don't read any more of this article, then remember just this very simple statement when putting up any ham antenna,

"If there is a power line, including the drop line going to your house, over, under or within a thousand feet of the antenna, IT WILL FALL AND hit your antenna and YOU while you are installing it! If it does not happen then...just wait a while...it will fall. If it is under your antenna, the antenna WILL fall on the power line and you should not have been so stupid to install it over OR NEAR the power line in the first place and chances are you are not reading this. This is how "accidents" happen.

This statement is derived by using "Murphy's Law"...if it can not happen, it will, if it will happen, it won't.....

unless something else happens.....loosely translated for use with this article!
(The thousand feet was a bit of an exaggeration).





The most important thing you can do **FIRST** when installing an antenna is to **LOOK** before any part of that antenna, tower, mast or antenna support or any part of that antenna "system" ever gets off the ground. This includes the guy wires...what if suddenly one breaks and flies into a power line. You or someone else is in contact with the mast, or tries to stop the guy wire..

bang, your dead!

The principle is very easy. Go outside and consider every possible location for your antenna.

Then look at each possible location with the **DANGER** aspect added to it. Where are the nearest power lines?

Are you in the open, or are there trees in the area?

Look behind the trees or inside the foliage where they might be lurking, just like a rattle snake hiding there waiting to "strike".

Many times it's the power lines out in plain site that will get you or one of your helpers or all within it's reach!

Then, the **SECOND** thing you need to do is to get another pair of eyes from a helper to do the same thing...**LOOK** again at **ALL** possible hiding places for the danger of power lines and remember, it is the power line that you don't see or the one that you are not toooooo concerned about that will **terminate** your fun.

ASSUME THE WORST WILL HAPPEN!

Now consider that most guyed antennas like verticals are supported on "something". It may be a metal mast on the ground, a short metal "tower" with legs on the roof, or a wooden pole or other supposed "non-conductive material. Is it conductive to high voltage?

Would you bet your life or your help on not knowing for sure?

Assume that every thing the antenna is mounted on **AND EVERY THING** it is connected to is conductive. Don't gamble your life on the words, "I think it is non-conductive"!!!!

Assume that the guy wires are conductive. If one breaks and snaps back or "accidentally" slips out of yours or a helpers hand, which direction will it likely go...toward the power line? If it is under much tension at all, it will act like a whip...Here comes Murphey's Law....

IT WILL go toward the direction of the power line!

Now, assume a domino effect. If your vertical falls toward a small tree that can't take it's weight, the tree will fall, **INTO A POWER LINE**....the power line connects to the tree, the tree is connected to the antenna or a portion of it, and it is connected to you....that domino effect just bit you like that rattle snake with a **LETHAL BITE!**

In short, assume that the antenna or any portion of it including it's guy wires, feed lines, support, etc **WILL** fall or break while you are putting it up "near" power lines. If any power lines are within "striking" distance of **ANY** portion of the antenna or it guys, support ropes, etc.....you may wish...for a split second, that you had planned your life much better rather than get in a hurry to **DIE!**

So far, we have talked about vertical type antennas. You should apply the above tips to **ANY** ham radio antenna, or antenna installation no matter how it is designed, how small or what it is made of. Your antenna is your "friend" but it or any part of it could be your enemy!

Plan far ahead with these tips:

Let others know what you will be doing and not just the person or persons helping you. All of you may need emergency care and no one may be able to call 911!

If you are not sure what you are doing, get expert help!

Plan your steps as if your life and those around you depend on it.

Notify a family member or neighbor that you will be putting up the antenna. Ask them to keep an eye **AND** an ear out for you...

HAVE A PLAN, NOT A FUNERAL!

NO ALCOHOL OR DRUGS! Alcohol, drugs, electricity and "antenna parties" do not mix!

Get a good nights rest before the big day.

Have a clear mind when you are installing antennas.

Have more than enough help.

Make sure all those involved with the installation know exactly what will be done and in the proper steps. Make a plan and let your helpers know ALL of the details...

Make sure all concerned know what to do if the antenna or any part of it starts to fall toward a power line.....simple....**let go**....get as far away as possible from ANY part of the antenna.....**let it fall**...DO NOT TRY TO KEEP IT FROM FALLING INTO THE POWER LINE.....YOUR EFFORTS MAY KILL YOU OR OTHERS!

Do not try to install the antenna in bad weather with wet ground, snow, ice, etc.

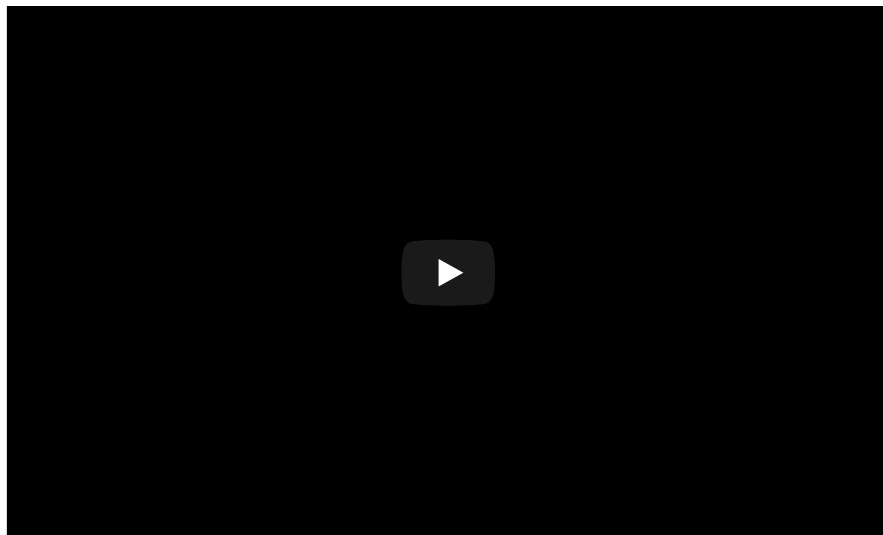
There is an old ham saying, "*Bad weather is the best weather to put up an antenna*".

Don't believe it. Mother nature loves to disrupt antenna installations and get you hurt or worse.

NEVER, NEVER, NEVER put up or even think about putting up any kind of antenna when you can hear thunder. If you can hear thunder in the distance, lightning can strike you!

Electricity in Action!

Below are selected videos that may help you understand the dangers of power lines!
(Hightspeed connection required or wait for long downloads)



[Like a Bird on a Wire!](#)

This clip taken from a 2003 documentary, Helicopters in Action. It was shot in IMAX showing high voltage power line safety from a birdseye view! It demonstrates some electrical principles in a very close up and personal way pertaining to personal safety! Fascinating demonstration of grounding principles, insulation, Faraday shields, high voltage arching.... and....bravery! Turn your sound up and watch for the arching.